



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------|
| 10/659,430  | 09/11/2003  | Kenichi Takada       | 0666.1740001               | 4090             |
| 26111   | 7590        | 12/30/2005           |                            |                  |
| STERNE, KESSLER, GOLDSTEIN & FOX PLLC<br>1100 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                      | EXAMINER<br>LOPEZ, FRANK D |                  |
|   |             |                      | ART UNIT                   | PAPER NUMBER     |
|   |             |                      | 3745                       |                  |
| DATE MAILED: 12/30/2005   |             |                      |                            |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/659,430

Applicant(s)

TAKADA ET AL.

Examiner

F. Daniel Lopez

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 24,25 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 24,25 and 28 is/are rejected.
- 7) ☐ Claim(s) 29 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 3, 2005 has been entered.

***Response to Amendment***

Applicant's arguments with respect to claims 24, 25 and 28 have been considered but are deemed to be moot in view of the new grounds of rejection.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC 103***

Claims 24, 25 and 28 are rejected under 35 U.S.C. 103 as being unpatentable over Takada et al in view of Hann and Weisenbach. Takada et al discloses an axle driving apparatus comprising a one piece center section (5) in a housing (1, 2) and providing a closed fluid circuit for a variable displacement pump (P) having a movable swash plate (8) and a motor (M); input shaft (3) and axle driving the pump and being driven by the motor, respectively; a charge pump (11) supported by and located in the housing, being driven by a second end of the input shaft, and supplying fluid from a sump formed by the housing; but does not disclose that there is a hydraulic actuator for tilt operating the swash plate, being disposed within the housing and being supplied fluid by the charge pump, wherein the actuator includes a hydraulic cylinder and a manually controlled control valve; or that the center section forms at least a portion of the cylinder.

Hann teaches, for an axle driving apparatus comprising a closed fluid circuit for a variable displacement pump (14) having a movable swash plate (26) and a motor (16); input shaft (22) and axle driving the pump and being driven by the motor, respectively; a charge pump (46) supplying fluid from a sump (48), wherein the pump is disposed within a housing (case); that there is a hydraulic actuator (30, 32) for tilt operating the swash plate, being disposed within the housing and being supplied fluid by the charge pump, wherein the actuator includes a hydraulic cylinder and piston (38, 40) having a location controlled by a manually controlled control valve (82), as is well known (e.g. column 1 line 13-16).

Since Takada et al and Hann are both from the same field of endeavor, the purpose disclosed by Hann would have been recognized in the pertinent art of Takada et al. It would have been obvious at the time the invention was made to one having ordinary skill in the art to use a hydraulic actuator for tilt operating the swash plate of Takada et al, wherein the actuator is disposed within the housing, is supplied fluid by the charge pump, and includes a hydraulic cylinder and piston having a location controlled by a manually controlled control valve, as taught by Hann, as a matter of engineering expediency.

Weisenbach teaches, for a hydraulic apparatus comprising a center section (26) providing a fluid circuit for a variable displacement pump (32) having a movable swash plate (58); a hydraulic actuator for tilt operating the swash plate, being disposed within the housing, wherein the actuator includes a hydraulic cylinder and piston (104); that the center section forms a portion of the cylinder.

Since the modified Takada et al does not disclose the location of the cylinder, and Weisenbach does, it would have been obvious at the time the invention was made to one having ordinary skill in the art to form a portion of the cylinder of the modified Takada et al as part of the one piece center section, as taught by Weisenbach, as a matter of engineering expediency.

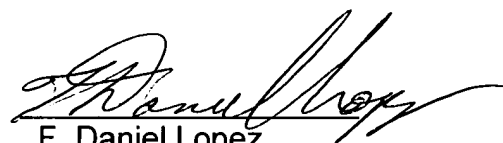
Art Unit: 3745

**Conclusion**

Claims 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-272-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

A handwritten signature in black ink, appearing to read "F. Daniel Lopez", with a horizontal line drawn underneath it.

F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
December 23, 2005